



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

ART. X.—CRITICAL NOTICES.

- 1.—*The Physiology and Pathology of the Mind.* By HENRY MAUDSLEY, M. D., London, Physician to the West London Hospital; Honorary Member of the Medico-Psychological Society of Paris; formerly Resident Physician of the Manchester Royal Lunatic Hospital, etc. New York: D. Appleton & Co. 1867. 8vo. pp. xiv., 442.

ALTHOUGH marred by many typographical errors, especially in the citations from German authors (we have noticed two in a single foot-note), this volume is presented to the public in a handsome form. For convenience of reference, the table of contents, excellent and full as it is, needs to be supplemented by a good index; and, considering that the book will be read by many persons unfamiliar with the special studies of the physician, we cannot but regret that the author has taken quite so much anatomical knowledge for granted in his readers. A very few pages devoted to the anatomy of the nervous system, especially if accompanied by illustrations, would have greatly enhanced the practical usefulness of a treatise which no student of mental science can afford to neglect.

Dr. Maudsley's style is vigorous and clear, not infrequently pointed and crisp, and evinces a general literary culture not always combined with special scientific attainments. A few faulty expressions, however, have attracted our notice. Although the authority of the common version of the Psalms ("Like as a father pitieth his children," &c.) can be cited to justify the use of *like as* for simple *as*, it is hardly consonant with present usage to employ the phrase; and there is a certain inelegance, if not inaccuracy, in the sentence, "it is still capable of sensori-motor movement, like as the animal which possesses no cerebral hemispheres is" (p. 89). The same phrase occurs on pp. 131, 142, 348. Nothing, however, can justify such a vulgarism as the following: "They are strange and startling, like the products of a dream oftentimes are" (p. 18). We doubt, also, whether the verb *to crave* should be employed intransitively, as in the sentence, "Unsatisfied appetite craves for more nutriment" (p. 132); and whether the verb *to ail* should be used transitively with a personal subject, as in the sentence: "A stranger conversing with her would not have discovered that she ailed anything at all" (p. 308); so, somewhat similarly, "Nor do the muscles themselves ail anything" (p. 364). There can be no excuse for such careless and slovenly English as the following: "*Between every act* a repair of composition takes place" (p. 71).

Referring to the truly developed imagination as a power of yoking different images, by means of their occult but real relations, into the unity of a single image, it is said on p. 188: "This *esemplastic* faculty, as Coleridge, following Schelling, named it, is indicated by the German word for imagination; namely, *Einbildung*, or the *one-making faculty*." This is not correct. The German prefix *ein* is not the adjective *one*, but the adverb *in* or *within*; and the verb *einbilden*, whence the noun *Einbildung* is derived, does not signify to *make one* or unify, but to *form within*,—that is, to create a mental image or internal representation of external objects.

Dr. Maudsley is not altogether above the narrow prejudice which Comte displayed towards "metaphysicians," and sometimes shows an equal misappreciation of the true value of metaphysics. Against "teleologists" especially Dr. Maudsley entertains a prejudice which runs into undisguised contempt, and adds pungency to his style. "Is it not truly a marvel that some teleologist has not yet been found to maintain that the final cause of the moon is to act as a 'tug' to the vessels on our tidal rivers?" (p. 66.) "If that is not satisfactory to the teleologists, it will be sufficient to recall to them the already given observation of Spinoza, and to congratulate them on their power of diving into 'the mysteries of things as if they were God's spies.' Were it not well, however, that they should condescend to humble things, and unfold to us, for example, the final cause of the mammary gland and nipple in the male animal?" (p. 70.) In fact, with all his fairness and evident sincerity of intention not to evade any argument of an opponent, Dr. Maudsley's impatience sometimes disqualifies him for doing full justice to the opinions of others.

But enough of microscopic criticism. The few insignificant blemishes we have noticed are as nothing compared with the solid merits of the book. It is a work of great power, and we anticipate for it a wide influence. Whether the present attempt is altogether successful or not, it is one more indication of the rapidly increasing influence of the positive philosophy over modern thought, and will be cordially welcomed by all who believe that in the complete development of positivism, unripe and crude as it now is, lies the only hope of a stable mental science. The conflict between positivism and the lingering philosophic dogmatism of the past is what Mr. Arnold's lively Prussian declared the recent war between Prussia and Austria to be,—the conflict between "*Geist*" and "*Ungeist*." At the same time, we believe that the positivism of the future will assume a form quite free from the arbitrary and petty limitations now imposed upon it by champions more enthusiastic than far-sighted. The same

advance in knowledge which has developed astronomy out of astrology, and chemistry out of alchemy, will yet develop out of the narrow psychology of to-day a grand, universal anthropology.

The design of Dr. Maudsley, as he states in his Preface, is "two-fold: first, to treat of mental phenomena from a physiological rather than from a metaphysical point of view; and, secondly, to bring the manifold instructive instances presented by the unsound mind to bear upon the interpretation of the obscure problems of mental science." The volume consists, accordingly, of two parts, the first part being devoted to the "Physiology of Mind," and the second part to the "Pathology of Mind." Part Second contains seven exceedingly interesting and valuable chapters on Insanity, — on the "Causes of Insanity," on the "Insanity of Early Life," on the "Varieties of Insanity," on the "Pathology of Insanity," on the "Diagnosis of Insanity," on the "Prognosis of Insanity," and on the "Treatment of Insanity." These chapters are crowded with important facts and suggestions, and deserve most careful study.

Of the nine chapters of Part First, Chap. I. is devoted to "The Method of the Study of Mind"; Chap. II., to "The Mind and the Nervous System"; Chap. III., to "The Spinal Cord, or Tertiary Nervous Centres; or Nervous Centres of Reflex Action"; Chap. IV., to "Secondary Nervous Centres, or Sensory Ganglia; Sensorium Commune"; Chap. V., to "Hemispherical Ganglia; Cortical Cells of the Cerebral Hemispheres; Ideational Nervous Centres; Primary Nervous Centres; Intellectorium Commune"; Chap. VI., to "The Emotions"; Chap. VII., to "Volition"; Chap. VIII., to "Motor Nervous Centres or Motorium Commune, and Actuation or Effectation"; and Chap. IX., to "Memory and Imagination." So far as is possible within our limits, we propose to give some account of the first two of these chapters.

The influence of Comte is plainly discernible in the general reflections with which Dr. Maudsley commences his chapter on Method. The famous three stages of human development — the theological, the metaphysical, and the positive or scientific — reappear here unmodified. The notion, however, that these three stages are strictly successive, and that, in the true order of evolution, each must wholly pass away to make room for its successor, is manifestly enough a misreading of the facts. As a rough sketch, there is some verisimilitude in this trinal theory of human progress from savagery to civilization; but, taken in this literal way, it is caricature, not portraiture. As science advances, theology and metaphysics are changed, but not destroyed. Science, the latest-born of the three, is to-day reacting powerfully upon

metaphysics, and to-morrow will quite as powerfully react upon theology; but its influence is beneficial rather than destructive, and will only establish more solidly whatever real truth has been seized by its elder sisters. Development, not violent metamorphosis, is the history of man. The greatest weakness of positivism in its present condition, the mark of its immaturity, is its inaptitude for profound metaphysics, and its childish contempt for theology. We admit with perfect readiness that the metaphysics and theology now existent deserve nearly all, if not quite all, the contempt they receive from positivism; but none the less sure is it that, as positivism becomes strong and self-contained, it will see more and more to respect, as well worthy of study, in the history of philosophy and religion. "Anaximander," says Dr. Maudsley (p. 2), "looking into his own mind, and finding an imbecility there, gave to it the name of the Infinite, and, transferring it outwards, was thenceforth quite content to pronounce it to be the true origin of all things." We doubt whether Anaximander was deeply conversant with the Hamiltonian theory of the Infinite; but we do not doubt that Dr. Maudsley, if he had studied metaphysics with the same admirable thoroughness with which he has studied physiology, would never have penned so shallow a sentence.

Coming to the main question of method, Dr. Maudsley inquires whether the inductive and objective method, accepted universally in physical science, can also be made available in mental science. He admits that direct observation of mental phenomena in others cannot be made, and regrets that direct observation of the organic processes which are the bodily conditions of such phenomena is equally impossible. After casting a slur upon metaphysicians (p. 8), and pointing out the increasing favor with which biography is viewed at present as indicating an instinctive *nisus* towards an objective method of studying mind, he brings various charges against the method of empirical psychology, the interrogation of self-consciousness, not merely as inadequate, but as "utterly unreliable." His chief reason is an old one,—that the mind cannot be simultaneously observer and observed. To this we reply that the fact of consciousness is simply the fact that the mind is at once subject and object, and that, if Dr. Maudsley's reason proves anything, it proves that the mind is necessarily unconscious of itself and its own action,—which Dr. Maudsley himself would doubtless admit would be proving too much. Argument never yet extinguished a fact. But we regret that, forgetting his own previous admission of "the uselessness of an exclusive method" (p. vii. of the Preface), he goes so far in his antipathy against the psychological method as to make it practically worthless. To be

sure, he denies that he does so (p. 25), and cites the example of Locke as showing its availability "in competent hands"; but he immediately adds, that "it was not because of this method, but in spite of it, that Locke was greatly successful"; and that "the insufficiency of the method used is proved by the fact that others adopting it, but wanting his sound sense, directly contradicted him at the time, and do so still." What an argument! Are all scientific men who confessedly adopt the objective method agreed in their results? Fools never advance science; the best method is good for nothing in the hands of men without "sound sense." All that Dr. Maudsley says of the *inadequacy* of psychological introspection to furnish complete data for mental science we cheerfully accept; all that he says in favor of the physiological method we cheerfully accept. We only feel surprised that so excellent a thinker should fall into such empty and commonplace strictures, and think it necessary, in order to vindicate the value of physiological investigation into mental processes, to decry all subjective analysis of them. He admits, indeed, the value of such analysis as far as the individual is concerned, and even says that we need this particular study of the individual. But that universal truth can be discovered in this way, and not merely particular facts, the success of Aristotle in studying the laws of logic is a shining proof. Dr. Maudsley apparently forgets that, besides his individual peculiarities, every man possesses a mental nature common to all the race. Instead, therefore, of jealously discrediting the subjective analysis of consciousness as of no scientific value, it would be infinitely wiser to carry into it the general spirit and method of positive science, remembering that different converging lines of investigation are more likely than a single line to reach the truth.

There is, doubtless, a great reform of method needed in the further prosecution of mental science. But the true method will not be wholly a new one, nor can it possibly be a simple one. It will rather be a new adjustment and correlation of many familiar methods. It is with methods as with facts,—they need to be co-ordinated and generalized. With his wonted sagacity, Bacon aimed at the due combination of the rational and empirical faculties, and not, as many narrow Baconians fancy, at the sole use of the latter. It will be the greatest of all philosophical achievements to perfect a scientific method which shall be valid, not merely in the study of external nature, but also in the highest departments of abstract thought. But it cannot be wrought out by arbitrarily excluding from use any genuine method hitherto practised. On the contrary, it will be the colligation of all such methods in natural relations, and their harmonious union under a single organizing

idea. This general and complex method must dominate over the whole realm of science, and adapt itself everywhere to the special phenomena to be studied; it will never be crammed into a catch-word or pithy formula.

Dr. Maudsley proceeds to enumerate the various "divisions of the objective method" to be employed in building up a true mental science (p. 27):—

I. The physiological method, or study of the organs and organic processes which are the physical conditions of mental activity.

II. The study of the plan of development of mind, as shown in the animal, the barbarian, and the infant.

III. The study of the degeneration of mind, as exhibited in the different forms of idiocy and insanity.

IV. The study of the progress and regress of the human mind, as exhibited in history.

It seems hardly appropriate to give these as "divisions of the objective method"; they are rather divisions of the general *object-matter* to which the method is to be applied. As a ground-plan for the construction of a genuine mental science, however, the enumeration is incomplete. It would be presumptuous at the present time to undertake to sketch such a plan except for purely provisional purposes; the science of mind plainly depends on all the other sciences, and cannot be created until the other sciences have attained a degree of perfection which does not yet exist. Without, however, attempting an impossible task, we venture to submit the following outline, with the hope of stimulating thought on a subject which must grow in importance and interest as time goes on:—

I. General physical conditions of organic life in the cosmical environment.

II. Special physical conditions of mental life in the organization of the nervous system: its comparative anatomy, and physiological relations to mental manifestations.

III. General plan of development of mental life throughout the animal kingdom.

IV. Special plan of development of mental life in man, including, —

1. Development of mind in the race, as shown in the history of civilization;

2. Development of mind in the individual, as affected by climate, hereditary influences, education, and other incidental causes;

3. Decay of mind in the individual, whether normal in natural organic dissolution, or abnormal in idiocy, insanity, &c.

V. General results of mental life, regarded as objective products of mind, and as in relation to mind itself; —

1. In the lower animals: instinctive acts, acquired habits, special structures (e. g. spider-webs, ant-hills, honeycombs, nests, burrows, beaver-dams), &c.;

2. In man: language, literature, art, science, manufactures, political, social, and religious institutions, &c.

VI. Special results of mental life; successive states of consciousness, which can only be brought under scientific investigation by means of introspection and subjective analysis, and careful observation of which can alone reveal the laws of association of ideas, the true classification of faculties, &c., &c.

This is by no means an exhaustive statement of the basis of a truly positive mental science, but it may at least indicate how broad that basis must be.

Passing next to the mind itself and its relation to the nervous system, Dr. Maudsley shows the fallacy in the famous maxim of Cabanis that the brain secretes thought as the liver secretes bile, and says that mind, "viewed in its scientific sense," is "a natural force"; and that like electricity or gravity, it is "appreciable only in the changes of matter which are the conditions of its manifestation." As by observation of the mechanism and appropriate abstraction we get the essential idea of a steam-engine, so, says Dr. Maudsley, we get the essential idea of the mind, which is an abstract idea or general term, and has no existence out of the mind; but "this metaphysical abstraction has been made into a spiritual entity," and thus allowed to "tyrannize over the understanding." Whatever may be the real nature of the mind, "it is most certainly dependent for its every manifestation on the brain and nervous system." Further, "mental power is truly an organized result, not strictly speaking built up, but matured by insensible degrees in the course of life." The ganglionic cells of the brain, which are not inexhaustible centres of self-generating force, can give out no more than what they have in some way taken in: "the nerve-cell of the brain, it might in fact be said, represents statical thought, while thought represents dynamical nerve-cell, or, more properly, the energy of nerve-cell." He indefinitely postpones the question whether the mind is the function of the brain, and declares it the present business of science to investigate the conditions of activity of the ganglionic nerve-cell, or groups of nerve-cells.

It is the favorite maxim of Büchner, "Keine Kraft ohne Stoff, kein Stoff ohne Kraft"; and Dr. Maudsley expresses its substance in saying that "matter and force are necessary coexistents" (p. 367). But with this view of the relation between force and matter (which is doubtless now a scientific axiom in the field of sensible experience), it

is a curious example of negative dogmatics to assert so positively that "mind is the most dependent of all the natural forces" (p. 60). The great mystery of life is not yet fathomed. There is no scientific evidence as yet to show that mind is a "natural force" at all, in this sense of being inseparable from matter. To call it so is to beg the question. The conviction of Dr. Maudsley can be no stronger than our own, that every manifestation of the mind now perceptible by us is utterly dependent on the nervous system; but to say that mind itself is thus dependent is not science, but simple dogmatism. Physiology, however far it may be carried, will never get beyond the nervous system. All its verified results will assuredly stand fast against all the prejudices of ignorance and the terrors of superstition, but it can no more settle the question of the nature of mind than it can determine the age of the globe. Whether either question can be settled yet may well be doubted. What is clear is, that Dr. Maudsley, while professing to give no theory of the nature of mind (p. 40), has inadvertently theorized about it, and gone beyond his depth.

In his antipathy to "metaphysics" and "psychology," Dr. Maudsley repeatedly pours contempt on all mention of "faculties"; as, for instance, on p. 168, where he exclaims, "How misleading the parcelling out of the mind into separate faculties that answer to nothing in nature!" But, by faculties, intelligent men signify merely different manifestations of mind, which, for purposes of science, need to be discriminated and named: no one regards them as organs of an "entity." Is there no difference between reasoning and imagining, remembering and acting? Do these distinctions "answer to nothing in nature"? Reason and imagination, memory and will, are names affixed to these unlike manifestations of mind; and no physiological discoveries can ever cancel their essential unlikeness, or supersede the necessity of giving them distinct names. The truth that "conscious acquisition" becomes "unconscious faculty" (p. 111), and that faculties are gradually "organized" in the nervous centres, in no wise conflicts with the natural distinction among them. On the contrary, it perfectly harmonizes with the universally admitted fact of their gradual development. When speaking of the cortical cells of the cerebral hemispheres, Dr. Maudsley says himself that different convolutions of the brain do in all probability subserve different mental functions, although the phrenologists have very rashly classified them; that the "broad and prominent forehead" indicates generally great intellectual power; and that "the upper part of the brain and the posterior lobes have more to do with feeling than with the understanding" (p. 107). This perfectly accords with the pathological results of Schroeder van der Kolk, who

asserts that, "when intellectual disorder especially has existed in madness, he has found the cortical layer under the frontal bones to be darker colored, more firmly connected with the pia mater, or softened; in melancholia, on the other hand, where the feelings chiefly are excited or depressed, the pathological changes were found rather in the convolutions of the upper and hind lobes" (p. 59). Now, in determining the special functions of the hemispherical ganglia, physiological investigation confessedly fails: the microscope cannot detect the subtle changes that take place. Is it not possible that a really scientific classification of the faculties, determined by introspective analysis, may yet prove a useful guide to the physiological investigator, and lead to important discoveries in regard to the functions of the different convolutions of the cineritious substance of the brain? There is great reason to infer this specialization of functions in the cortical layers; there is little reason to expect to discover it either through empirical craniology, or through direct physiological observation. Yet, with the clew obtained from a truly scientific psychology, the discovery may yet be made.

The passage quoted above from p. 107, distinguishing the anterior lobe of the brain as more closely indicative of intellect, and the middle and posterior lobes of feeling, hardly consists with the statement on p. 137, that "there do not appear to be satisfactory grounds, either in psychology or physiology, for supposing the nervous centres of emotion to be distinct from those of idea." Dr. Maudsley's theory of emotion and volition is less developed than his theory of ideation, and, we think, less satisfactory or definite.

2. — *The Positive Philosophy. An Oration delivered before the Phi Beta Kappa Society of Amherst College, July 9, 1867, and before the Phi Beta Kappa Society of the University of Vermont, August 6, 1867.* By A. P. PEABODY, D.D., LL. D., Preacher to the University, and Plummer Professor of Christian Morals in Harvard College. Boston: Gould and Lincoln. 1867. 8vo pamphlet.

UNDER the comprehensive name of positivism, a great variety of philosophical opinions are popularly designated at the present day. Authors who differ as fundamentally as Mill and Spencer, neither professing to be a follower of M. Comte, and one, Mr. Spencer, differing from Comte in almost every essential of doctrine, and openly repudiating the name, are now commonly called "positivists." It is this enlarged and now generally adopted meaning of "positivism," as synony-